

County of Loudoun
Department of Planning
MEMORANDUM

DATE: June 12, 2007

TO: File
SPEX 2006-0044; CMPT 2006-0009

FROM: Miguel Salinas, Senior Planner *M.S.*
Community Planning

SUBJECT: **SPEX 2006-0044 & CMPT 2006-0009**
Loudoun County Schools – Grubb Property 2nd Referral

BACKGROUND

Loudoun County Public Schools (LCPS), the applicant, is requesting approval of a Special Exception and a Commission Permit (the "Grubb Property") to allow an elementary school (ES-25) and middle school (MS-10) on three contiguous properties (the "subject site") of approximately 104 acres. The applicant is proposing an approximately 91,000 sq. ft. elementary school and 170,000 sq. ft. middle school with a projected enrollment of 875 and 1,350 students, respectively. The schools are intended to serve students located north of Route 9 (Charlestown Pike). Associated recreational facilities are proposed on the site. The School Board's Adopted FY 2008 through 2012 Capital Improvements Program projects the opening of ES-25 by the 2012-13 school year and MS-10 by the 2015-16 school year. The subject site is zoned Agricultural Rural-1 (AR-1) and is located on John Wolford Road (Route 694), adjacent to the east side of Purcellville Road (Route 611), east of the town of Hillsboro, north of Charlestown Pike (Route 9), and west of the Berlin Turnpike (Route 287). The subject site is located in the northern tier of the Rural Policy Area and planned for rural economy uses and limited residential development at a base density of 1 dwelling unit per 20 acres (*Revised General Plan, Policy 3, p. 7-15*).

The applicant has submitted a response to Community Planning's first referral, dated April 27, 2007, and has also submitted a Revised Statement of Justification and a revised Special Exception Plat. Below is a discussion of the outstanding issues.

OUTSTANDING ISSUES

A. LAND USE

Staff's first referral stated the location of the proposed elementary and middle schools is not consistent with plan policies, which call for the location of new public schools within or immediately adjacent to the existing Villages, Towns, and Joint Land Management Areas (JLMA) (*Revised General Plan, Policy 8, p. 3-10*). Staff also stated that the proposed schools, with a combined student/staff population of over 2,400 individuals, are not compatible with the planned land uses for the northern tier of the Rural Policy Area that call for a base density of 1 dwelling unit per 20 acres and rural economy uses (*Revised General Plan, text, p. 7-7*)

The applicant responded to staff's first referral by stating that the subject site is well-positioned to serve anticipated student growth in western Loudoun County. The applicant states that the Route 7 corridor already contains an established school cluster to serve the existing student population as well as the southern tier of the Rural Policy Area¹. According to the applicant, the existence of the Route 7 school cluster, along with the fact that most of the areas around the Towns have predominantly developed, means that it is likely the highest projections for future student growth will occur north of the Route 7 corridor. Consequently, the applicant states, this is where the next school cluster should be planned. The applicant also notes the difficulty in acquiring sites for new school construction to accommodate the projected student growth when land is not proffered, including rising land prices due to residential and commercial development and a lack of adequate infrastructure².

Staff reiterates first referral comments that the location of the proposed elementary and middle schools is not consistent with plan policies. The policy for the location of new school facilities is part of a larger growth management strategy for western Loudoun County that directs and supports concentrated residential, non-residential, public infrastructure, and public facility investments within or immediately adjacent to existing Towns, Villages, and JLMA's. This growth management strategy facilitates the compact and efficient use of resources while directing the majority of public investments into currently developed and planned communities (*Revised General Plan, Policy 6, p. 3-4, text, p. 3-6, Policies 1 & 2, p. 9-2, Policy 2, p. 9-7, & Policies 1 & 3, p. 9-8*). Plan policies within Towns and the JLMA's associated with the Towns of Round Hill, Purcellville, and Hamilton support: 1.) New growth that is primarily directed towards the

¹ According to the applicant's Statement of Justification, 57% of the current student population in western Loudoun County resides within one mile of the Route 7 corridor.

² According to the land acquisition section in the Loudoun County Public School's School Board Adopted FY 2008 through FY 2012 Capital Improvements Program, most existing schools were built on developer proffered sites dedicated to the school board. These proffered sites have been nearly exhausted and land acquisition is now becoming a necessary strategy for new school sites.

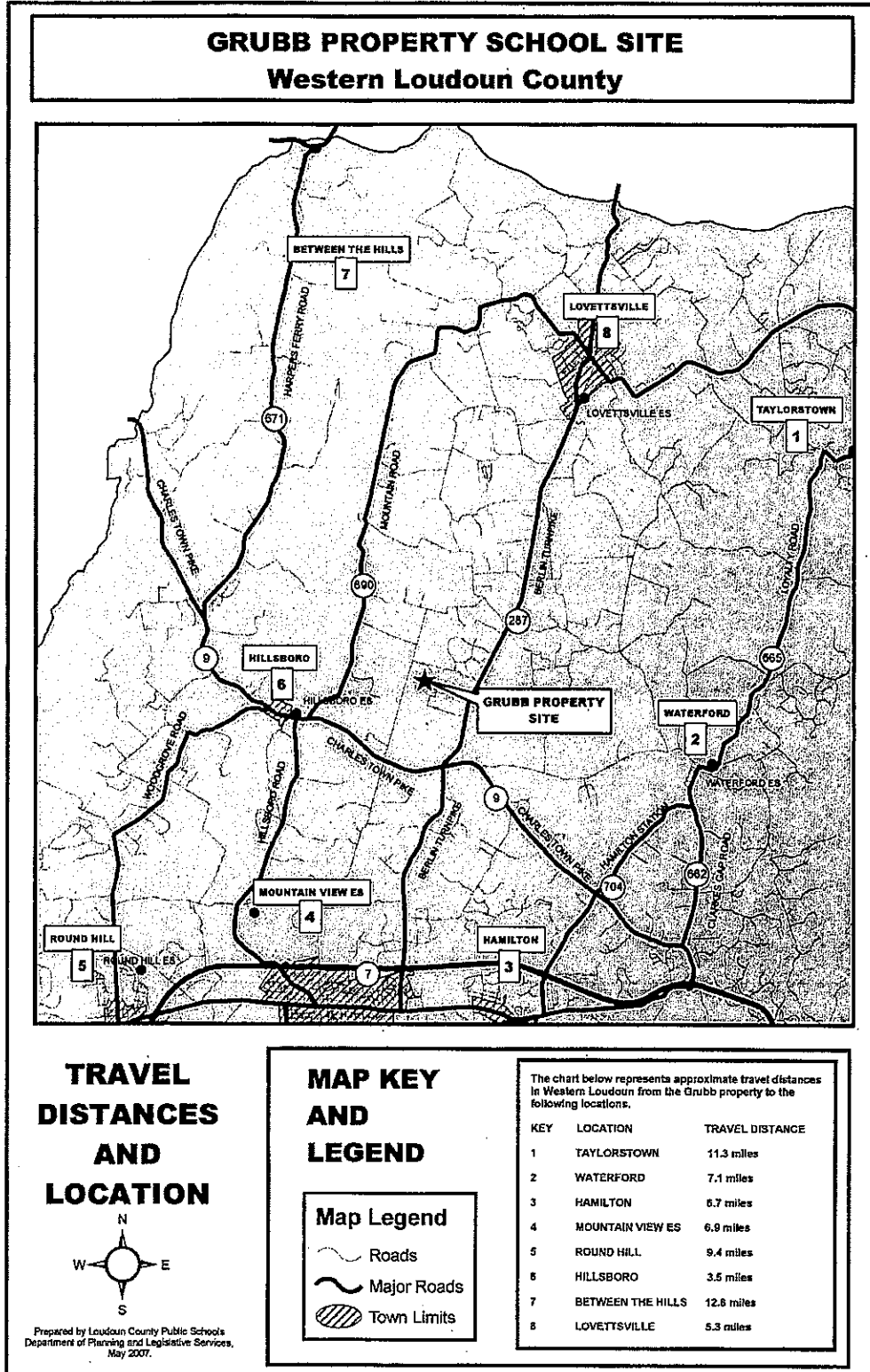
corporate limits of the Towns, first and foremost, before moving into contiguous designated JLMA's, 2.) The expansion of existing water and sewer facilities that encourages a coordinated development pattern and that furthers the goals and policies of the Revised General Plan, and 3.) The location of public facilities, including schools, within or immediately adjacent to the Towns. Likewise, the Revised General Plan encourages existing Villages (including Lucketts, Neersville, Taylorstown, and Waterford) to continue as hubs for community activities and new non-residential development, provided they are complementary to and compatible with their existing development patterns (Revised General Plan, text, p. 10-1).

The selection of new school sites outside of areas where the County desires to direct future growth and services could potentially have negative impacts on existing and preferred land use patterns, neighborhood traffic, student commute times, and commuter options for students. For example, Loudoun County has to identify the funds necessary to pay for the infrastructure costs necessary to support new schools. A planning process that does not sufficiently consider the costs of placing new school sites on land without adequate infrastructure could place too large a burden on taxpayers. Schools far from existing communities or future centers of population growth can also adversely affect student commute times. Conversely, appropriately placed school sites that meet plan policies can provide safe and convenient access for students while becoming focal points and civic anchors for the use of neighborhood and community residents during the evenings and weekends.

The historical development pattern for school sites has, for the most part, followed plan policies related to the County's growth management strategy - in particular plan policies that call for new school sites located within or adjacent to Towns, Villages or Joint Land Management Areas. Graphic 1, provided by Loudoun County Public Schools, demonstrates the subject property as being 3.5 miles from the Town of Hillsboro and 5.3 miles from the Town of Lovettsville. The proposed location of the schools does not conform with the policies of the Revised General Plan. Graphic 2 on the other hand, which shows the location of existing schools within LCPS's Loudoun Valley Cluster and their relationship to the County's Towns and Villages, demonstrates Loudoun County's historical adherence to county plan policies for the location of new school facilities³.

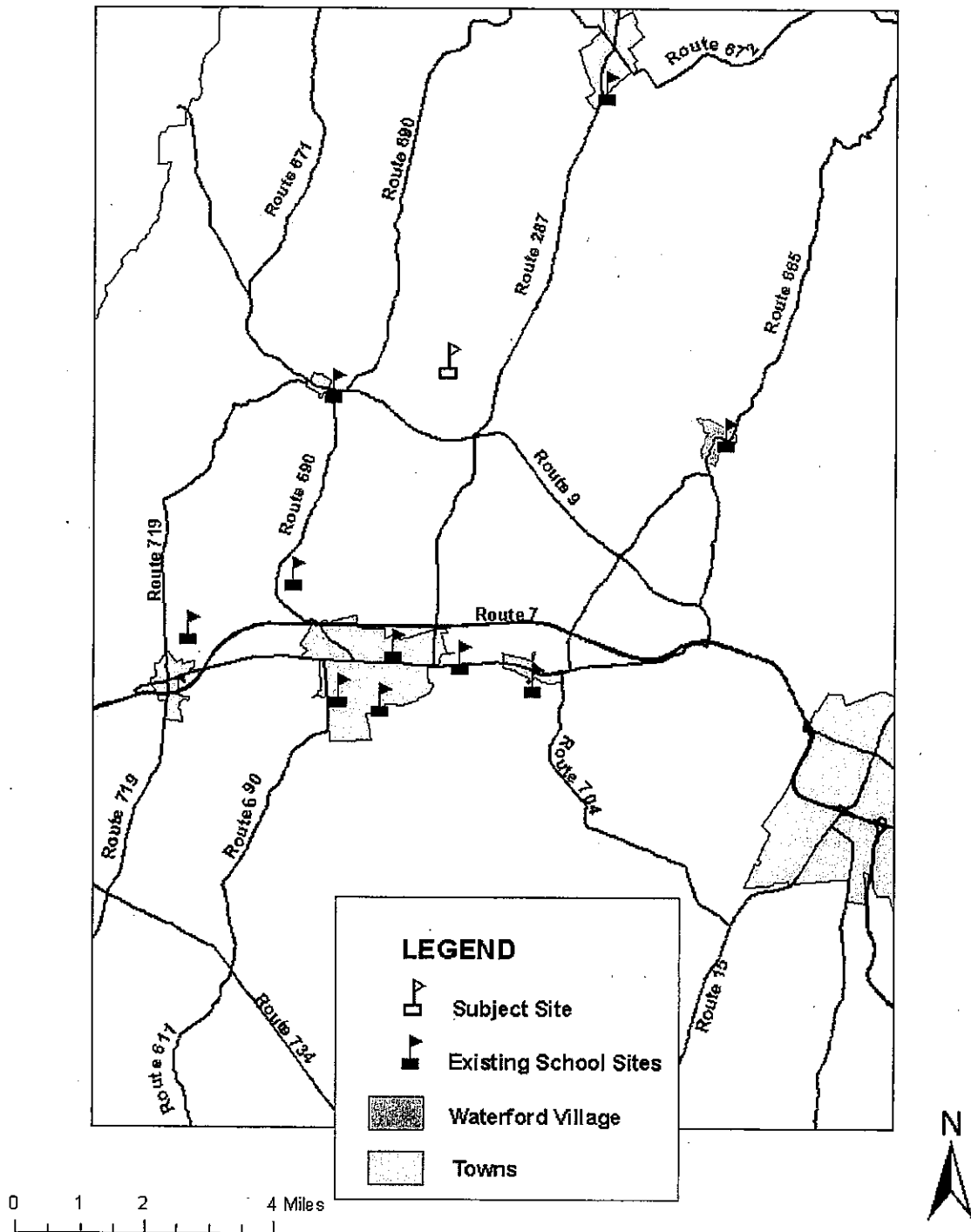
³ The Graphic excludes Banneker Elementary School located south of the map boundary. Lincoln Elementary School, located south of Route 7, also is not depicted on the map but is located adjacent to Purcellville's JLMA.

GRAPHIC 1:



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**GRAPHIC 2: EXISTING SCHOOL SITES -
WESTERN LOUDOUN**



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The location of the proposed elementary and middle schools is not consistent with plan policies. The policy for the location of new school facilities is part of a larger growth management strategy for western Loudoun County that directs and supports concentrated residential, non-residential, public infrastructure, and public facility investments within or immediately adjacent to existing Towns, Villages, and JLMA's. The subject site is located approximately 3.5 miles from the Town of Hillsboro and 5.3 miles from the Town of Lovettsville. The proposed schools, with a combined student/staff population of over 2,400 individuals, would not be compatible with planned land uses that call for low-density residential at a base density of 1 dwelling unit per 20 acres and/or for rural economy uses.

B. SITE SELECTION FOR NEW SCHOOL FACILITIES IN WESTERN LOUDOUN COUNTY

A Commission Permit is requested as part of this application. Commission Permits are used to determine if the general location, character, and extent of the proposed school uses are in substantial accord with the Comprehensive Plan. The school locational policies contained within the Revised General Plan provide the basis for evaluating conformity.

The applicant states the new school facilities are being planned for a site that is central to "anticipated" student growth north of Route 9. The applicant also notes that: 1.) The Route 7 corridor already contains an established school cluster to serve the existing student population, and 2.) Most of the areas around the Towns have predominantly developed. These facts, according to the applicant, preclude the selection of a site that meets plan policies. The applicant has suggested it is time to recognize that the policy contained within the Revised General Plan that calls for the location of new public schools within or immediately adjacent to existing Villages, Towns, and Joint Land Management Areas (JLMA) "is not in touch with the reality associated with land availability, acquisition, and development."

The location and design of public facilities, and schools in particular, are of primary importance to the County and the Revised General Plan calls for LCPS to coordinate with the County to identify suitable sites based on the plan's land use and growth policies. School facilities play a special role in neighborhoods and communities and act as focal points and civic anchors. The selection of sites for new school facilities, along with their design, should be measured against the highest possible standards (Revised General Plan, text, p. 3-6 and Policy 1, p. 3-9). A typical planning process for new school sites could include:

1. Future student population growth to consider schools at the focus of attendance areas (Revised General Plan, Policy 4, p. 3-9);
2. An identification of potential sites; and

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3. Site selection criteria that incorporates objectives established by the LCPS as well as policies contained within the Revised General Plan. Examples of criteria used to measure against potential sites could include:
- The proximity of the student population to be served and the schools that will be relieved of the overcrowding;
 - The provision of safe and convenient access for students;
 - The ability to maximize walking to the school by students;
 - The relationship between the site and other public facilities;
 - The availability of public water and sewer service;
 - The conditions of the existing roads to serve the site;
 - The potential relationship between the school and the neighboring community; and
 - Possibilities for flexible design (smaller school footprints, 2 story buildings, shared facilities and adaptive re-use) to reduce the need for larger sites.

It is not clear to staff as to the type of planning process that was undertaken by LCPS, the additional sites evaluated, and the sets of criteria used for each new school facility, which determined that no site was available within their anticipated catchment area that could meet plan policies. Although the applicant stated that LCPS undertook an extensive search of land for the western high school site currently proposed at Fields Farm (SPEX 2006-0022), staff notes that locational criteria used by LCPS for high school facilities may differ from those used for new elementary and middle schools.

Commission Permits are used to determine if the general location, character, and extent of the proposed school uses are in substantial accord with the Comprehensive Plan. The proposed site for ES-25 and MS-10 does not meet current plan policies that call for the location of new public schools within or immediately adjacent to the existing Villages, Towns, and Joint Land Management Areas. School locational policies are part of a larger growth management strategy for western Loudoun County. Staff recommends an alternative site or sites be identified that meet plan policies. If it is determined through a joint planning process between Loudoun County Public Schools and the County that no suitable sites for schools can meet existing plan policies, then a re-evaluation of those policies may be necessary in the context of a Comprehensive Plan Amendment.

C. ACCESSIBILITY

1. Rural Roads

Staff's first referral stated the location of the proposed schools on the subject site would exacerbate the need for traffic improvements already anticipated by background traffic alone. The subject site is located within an area that was not planned for the road infrastructure necessary to adequately serve the schools. Constructing the schools on

the subject site would generate the need for unplanned road improvements and would necessitate the need for paving and improving John Wolford and Purcellville Roads to accommodate a school/staff population of over 2,400 students and an estimated 3,300 ADT's. Paving and upgrading these roads would not be consistent with the policies of both the Revised General Plan and the Countywide Transportation Plan for rural, unpaved roads.

The applicant's Transportation Impact Analysis (TIA) demonstrated the need for several transportation improvements to serve the two schools proposed at the subject site. The following improvements are to be in place prior to the opening of the elementary school:

- Provide ROW as needed and upgrade Route 694 to provide 11-foot asphalt travel lanes and adequate shoulders/ditches from Route 287 to the northern property line of the school site, or the terminus of the public street;
- Construct a NB left turn lane, a SB right turn lane, and an EB right turn lane at the intersection of Route 694 and Route 287;
- Construct a cul-de-sac turn around at the end of Route 694;
- Construct a NB left turn lane and a SB left turn lane at the intersection of Route 693 and Route 287; and
- Signalization at the intersection of Route 694 and Route 287, contingent upon VDOT approval.

In addition, the following improvements are to be in place prior to the opening of the middle school:

- Provide ROW as needed and upgrade Route 611 to provide 11 foot asphalt travel lanes with adequate shoulders/ditches from Route 9 to the northern boundary of the school site;
- Construct an EB left turn lane, a WB right turn lane, and a SB right turn lane at the intersection of Route 611 and Route 9; and
- Provide signalization at the intersection of Route 611 and Route 9 contingent on VDOT approval.

The applicant stated new schools are necessary to serve the growing student population in western Loudoun County and that road improvements are needed to provide adequate levels of safety. The applicant points out that the road infrastructure is currently underdeveloped in western Loudoun County to serve existing traffic and every school site will require "unplanned" road improvements. While acknowledging that John Wolford Road and Purcellville Road will require upgrades to serve the proposed schools on the subject site, the applicant states the existing conditions of the roadways (present alignment and existing topography), along with their close proximity to major travel ways (Routes 9 & 287), will afford good access from the northern portion of the County.

Staff notes the additional trips resulting from the two schools would require the upgrading of unpaved rural roads within an area where the Revised General Plan's land

use pattern supports lower densities in part to mitigate the additional costs that higher traffic volumes incur (Countywide Transportation Plan, text, p. 3-11). Therefore, the County is committed to the preservation of the unpaved rural road network in its present state where possible. Furthermore, road improvements for new school sites oftentimes require a considerable public investment to cover costs. As stated in Section A above, the placement of new school facilities in the Rural Policy Area at the focus of existing or planned communities can help to ensure that the County will take full advantage of the capital costs invested for road infrastructure improvements.

Plan policies for the location of new school facilities is part of a larger growth management strategy for western Loudoun County that directs and supports concentrated residential, non-residential, public infrastructure, and public facility investments within or immediately adjacent to existing Towns, Villages, and JLMA's. The Revised General Plan's land use pattern in the Rural Policy Area supports lower densities in part to mitigate the additional costs that higher traffic volumes incur. The subject site is located within an area that is not planned for the road infrastructure necessary to adequately serve schools. Paving and upgrading these roads would not be consistent with the policies of both the Revised General Plan and the Countywide Transportation Plan for rural, unpaved roads.

2. Bicycle and Pedestrian Access

All public schools will be linked to adjacent neighborhoods by sidewalks or trails on both sides of roadways and crosswalks, and where possible, linked to greenways or trails (Revised General Plan, Policy 4, p. 3-10). Safe routes to school can be achieved by linking public schools to adjacent neighborhoods through sidewalks or trails on both sides of roadways and crosswalks (Revised General Plan, Policy 4, p. 3-10 and Bike/Ped Plan, text, p. 36). For multi-modal access to be most effective, school grounds and nearby developments need to provide safe accommodations (Bike/Ped Plan, text 3, p. 36).

Staff's first referral stated the proposed school locations, adjacent to surrounding developments and roadways where safe accommodations for students are not provided or planned for, means that plan policies that call for safe routes to school cannot be met. The applicant stated that the subject site will be safely served, will meet the projected needs of the growing western Loudoun County population, and that it is impractical to believe that students will be able to walk or bicycle to school, except from very limited and proximate home sites. Even within the rural towns, according to the applicant, the sidewalk systems are not continuous and provide no bicycle lanes.

Staff notes that the impracticability of students walking or bicycling to school has, historically speaking, not always been the case. Even in rural Towns and Villages, school sites were often located to act as civic anchors within the community. Such

locations meant that more children walked and bicycled to school. Almost 40 years ago, nearly 90% of children who lived within a mile of school used active transportation (i.e., walking or bicycling) as their primary mode of travel. Nearly half of all students walked or biked to school. Today, the number of students who walk or bike to school has dropped to approximately 15%. 20–25% of morning traffic during the school year is parents driving kids to school⁴. The reasons for these statistics might be attributed to a rise in auto-dependent developments and the consolidation of schools into larger facilities a distance away from existing communities. Placing the schools a distance away from existing population centers means the County will support new school locations that: 1.) Are not integrated into the adjacent neighborhoods or sites located within or immediately adjacent to existing Towns, Villages, and JLMA's and 2.) Offer very little, if at all, potential commuting options for students and where instead most students will need to be bused or driven to school by their parents. These are in direct conflict with the existing school locational policies cited in both the Revised General Plan and the Bike/Ped Plan.

The selection of a school site for ES-25 and MS-10 that is not located within or immediately adjacent to existing Towns, Villages, and JLMA's is in direct conflict with the locational policies contained within the Revised General Plan and the Bike/Ped Plan that call for safe routes to school, including linking public schools to adjacent neighborhoods by sidewalks or trails on both sides of roadways and crosswalks, and where possible, linked to greenways or trails, and providing greater commute options for students to walk or bike to school.

D. SITE DESIGN

Staff cannot support the proposal due to the fundamental land use policy issues inherent in the proposal. Should the application move forward, however, staff offers the following comments related to site design.

1. Buffering

The applicant has noted that the school buildings are located centrally within the subject site. The layout of the subject site will place the physical fields along Route 611. The drainfield area along John Wolford Road and the eastern side of the subject site, along with the stream corridor to the north, provide significant open areas to the east, west, and north and to the south there will be a distance of approximately 200 feet between the proposed elementary school and the southern boundary of the site.

The Special Exception Plat shows additional evergreen buffers for the most northern portion of the western boundary of the subject site. Due to the placement of the

⁴ Department of Health and Human Services, Center for Disease Control and Prevention, KidsWalk-to-School website, <http://www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm>.

recreational fields adjacent to residential uses to the west, as well as adjacent to Route 611, staff is requesting that a continuous, enhanced buffer be extended along the entire western boundary of the site.

Staff requests the applicant agree to a condition to provide a continuous, enhanced buffer along the entire western boundary of the site to include a combination of evergreens and fencing. Staff also recommends the continuous, enhanced buffer be depicted on the Special Exception Plat. Lastly, staff recommends the applicant depict on the plat a limit of impact area boundary line along the tree save areas located adjacent to the spring house.

2. Lighting

The applicant's Special Exception Plat (Sheet 1 of 4) states that the athletic fields will not be lighted and that all site lighting shall be in conformance with Section 5-1504 of the Revised 1993 Zoning Ordinance. The Revised General Plan promotes the use of lighting for convenience and safety without nuisance associated with light pollution (Revised General Plan, text & Policy 1, p. 5-42).

Staff recommends the applicant agree to a condition that the athletic fields will not be lighted. In addition to providing on-site lighting in conformance with Section 5-1504 of the 1993 Revised Zoning Ordinance, staff requests the applicant agree to condition site building and parking lot lighting that is designed and constructed with cut-off and fully-shielded fixtures so that light is directed inward and downward toward the interior of the property, and away from adjacent streets and properties.

3. Noise

According to the Special Exception Plat, the applicant is proposing 1 soccer field and 1 softball field associated with the elementary school, and 2 soccer fields and 1 softball field associated with the middle school.

Staff recommends the applicant agree to condition the prohibition of any outdoor public address systems on all athletic fields.

E. WATER/WASTEWATER

The use of LCSA-approved communal water systems to serve the Rural Policy Area is promoted for new and existing institutional uses, including schools, permitted by right or by special exception in the County's rural zoning districts (Revised General Plan, Policy 8, p. 2-20). The applicant proposes the use of an on-site water treatment facility. The general location of that facility has been depicted on the Special Exception Plat. A preliminary hydrogeologic evaluation, dated November 1, 2006, was submitted by Triad

Engineering, Inc. The evaluation provided a general assessment of groundwater quantity and quality and identified three potential on-site well locations to serve the proposed school sites. Two of the three preferred well sites have been identified on the applicant's Special Exception Plat. In addition, the preliminary evaluation estimates that groundwater recharge will exceed the estimated annual usage of 4.0 million gallons per year needed to serve both schools. A detailed hydrogeologic evaluation submittal by LCPS for County review is pending.

Communal wastewater treatment facilities serving institutional uses will be sized to serve only the institutional use (Revised General Plan, Policy 6, p. 2-21). The use of LCSA approved communal wastewater collection and treatment systems followed by surface or subsurface soil dispersion is promoted to serve new or existing institutional uses, including schools, permitted by right or by special exception in the County's Rural Transition Policy Area (Revised General Plan, Policy 5, p. 2-21). Communal wastewater treatment systems using surface or subsurface land applications will be preferred to communal wastewater treatment systems which discharge into streams (Revised General Plan, Policy 8, p. 2-21). The applicant proposes the use of an on-site wastewater treatment facility with a pre-treatment and secondary treatment system. A Preliminary Engineering Evaluation, dated August 31, 2006, was completed by Greenway Engineering. The wastewater treatment system design is based on a daily peak flow of 33,750 gallons per day (gpd). Disposal of the treated effluent will be by infiltration trenches and appropriately-sized drainfields have been depicted on the Special Exception Plat.

The proposed wastewater treatment facility meets plan policies that call for the facility to only serve the schools. The proposed wastewater treatment facility also meets plan policies that support collection and treatment systems that are followed by surface or subsurface soil dispersion. Staff defers any comments on water treatment facilities until the submittal of a detailed hydrogeologic evaluation has been submitted for review.

RECOMMENDATION

Staff cannot support this application due to several fundamental land use policy issues. The plan is clear that the location of new school facilities should occur within or immediately adjacent to existing Towns, Villages, and Joint Land Management Area's. Further, the subject site is also located within an area that is not planned for the road infrastructure necessary to adequately serve the schools. If it is determined through a joint planning process between Loudoun County Public Schools and the County that no suitable sites for schools can meet existing plan policies and an alternative approach to siting public facilities is warranted, then a Comprehensive Plan Amendment should be initiated.

Staff would be happy to meet with the applicant to discuss these issues.

cc: Julie Pastor, AICP, Director, Planning
Cynthia L. Keegan, AICP, Program Manager, Community Planning

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County of Loudoun
Department of Planning
MEMORANDUM

DATE: March 23, 2007

TO: File
SPEX 2006-0044; CMPT 2006-0009

FROM: Miguel Salinas, Senior Planner *MS.*
Community Planning

SUBJECT: SPEX 2006-0044 & CMPT 2006-0009
Loudoun County Schools – Grubb Property

BACKGROUND

Loudoun County Public Schools (LCPS), the applicant, is requesting approval of a Special Exception and a Commission Permit (the "Grubb Property") to allow an elementary school and middle school on three contiguous properties (the "subject site") of approximately 104 acres. The subject site is zoned Agricultural Rural-1 (AR-1) and is located on Route 694 (John Wolford Road), adjacent to the east side of Route 611 (Purcellville Road), east of the town of Hillsboro, north of Route 9 (Charlestown Pike), and west of Route 287 (Berlin Turnpike). See the Vicinity Map below for the exact location of the properties.

The applicant is proposing a 91,000 sq. ft. elementary school and 168,000 sq. ft. middle school with a projected enrollment of 875 and 1,350 students, respectively. The schools are intended to serve students located north of Route 9 (Charlestown Pike). Associated recreational facilities will be included on the site.

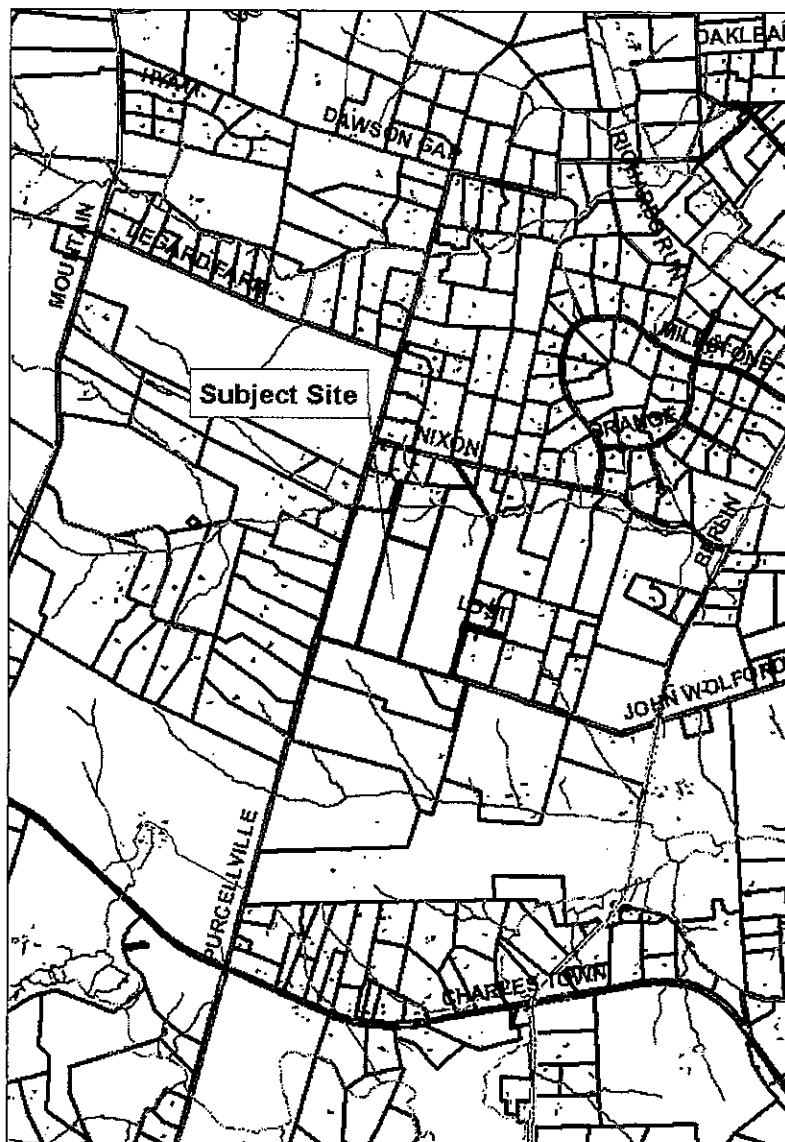
GIS records indicate that river and stream corridor resources are located along the northern portion of the subject site, including an unnamed east-west tributary of Catoctin Creek, major floodplain, and forested and emergent wetlands. A forested wetland is also located at the extreme southwestern portion of the site and is associated with the headwaters of an unnamed tributary of the North Fork of Catoctin Creek. There is minimal forest cover, mostly associated with fence rows, field borders, and a riparian corridor along the east-west tributary. The subject site is encumbered by a 35' permanent Right-Of-Way (ROW) easement along Purcellville Road and a 15' electric and telephone easement along the eastern boundary line. Two abandoned

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wells exist, along with three structures – a barn and springhouse at the northeastern portion of the subject site and a shed in the west-central portion. The spring house is associated with a stream that flows northwardly towards the east-west tributary.

GRAPHIC 1: VICINITY MAP:

LOUDOUN COUNTY SCHOOLS-GRUBB PROPERTY



COMPLIANCE WITH THE COMPREHENSIVE PLAN

The subject site is located in the northern tier of the Rural Policy Area and planned for rural economy uses and limited residential development at a base density of 20 acres per lot (Revised General Plan, Policy 3, p. 7-15). The policies of the Loudoun County Bicycle and Pedestrian Mobility Master Plan (Bike/Ped Plan) also apply.

ANALYSIS

A. LAND USE

The Rural Policy Area recognizes the need to maintain lower overall densities in order to achieve certain objectives, including:

- Protection of groundwater resources and open space;
- Enhancement of the rural economy; and
- Reduction of congestion on rural roads.

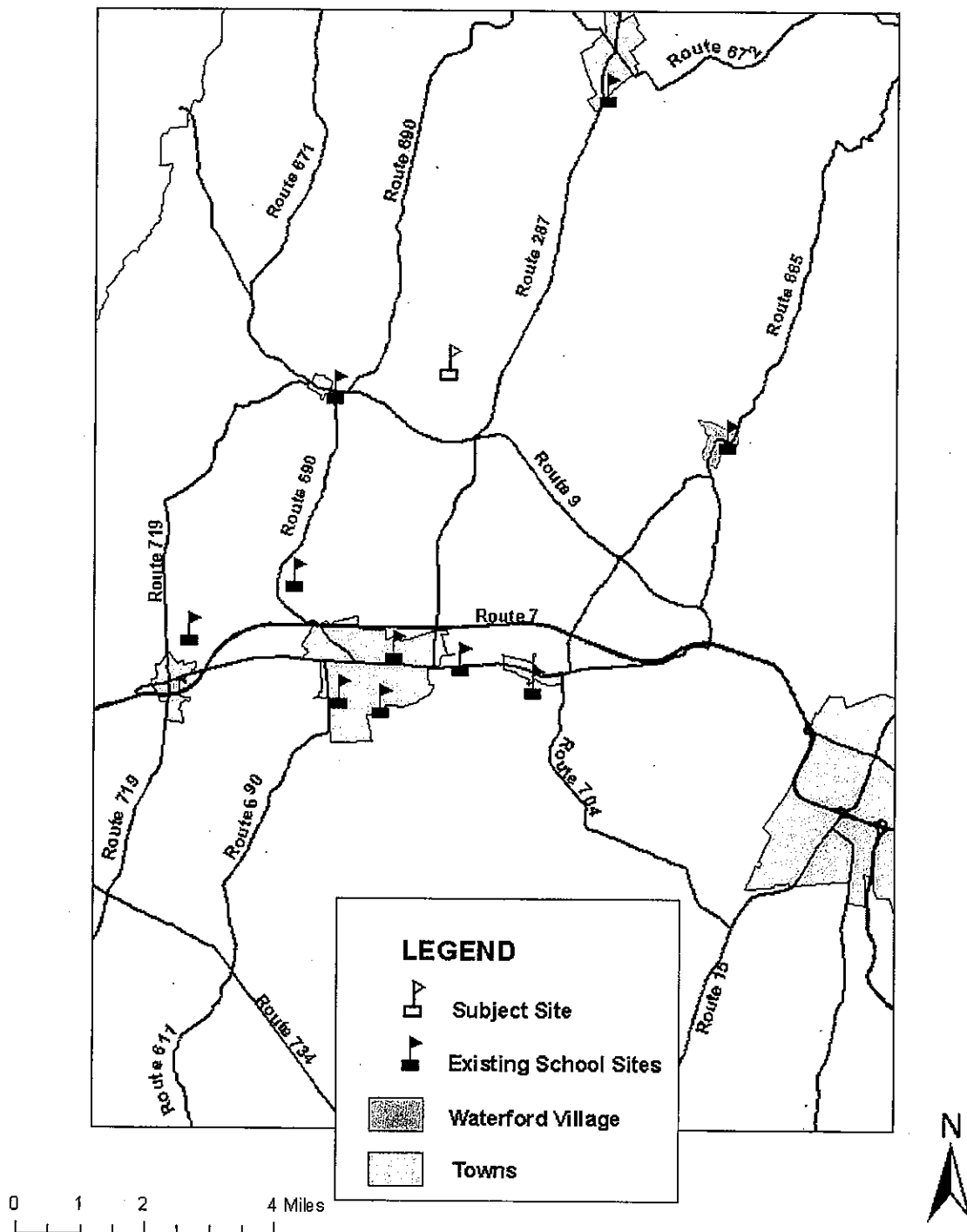
Rural residential development has accelerated rapidly since the mid-1990's (Revised General Plan, text, p. 7-2). Increases in residential development have triggered the need for additional public facilities, including schools. To accommodate this growth, the Loudoun County Public School's Capital Improvements Program (CIP) anticipates the need for a new elementary school by 2012 and a new middle school by 2015 in western Loudoun County.

A balanced land use approach to the Rural Policy Area that can achieve the objectives listed above while providing the schools necessary to accommodate residential growth is to locate new public schools within or immediately adjacent to the existing Villages, Towns, and Joint Land Management Areas (Revised General Plan, Policy 8, p. 3-10).

Graphic 2 below indicates historical adherence to this policy. The graphic shows the location of existing schools within the Loudoun County Public School's Loudoun Valley Cluster and their relationship to existing towns and villages¹. The graphic also shows the location of the subject site. The pattern of development for school sites has been to locate within Towns, Villages or Joint Land Management Areas – i.e., near population centers in western Loudoun where existing infrastructure can be utilized, where the intensity of the use is more compatible with the surrounding areas, and where greater accessibility can be achieved.

¹ The Graphic excludes Banneker Elementary School located south of the map boundary. Lincoln Elementary School, located south of Route 7, also is not depicted on the map but is located adjacent to Purcellville's Joint Land Management Area.

GRAPHIC 2: EXISTING SCHOOL SITES - WESTERN LOUDOUN



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The application's Statement of Justification states that the proposed schools are planned to serve the student population north of Route 9 ("Charlestown Pike") and that the subject site - located east of Hillsboro, between the towns of Purcellville and Lovettsville – is well positioned to serve the northern portion of the Rural Policy Area, with convenient access from Route 287 (Berlin Turnpike) and Route 611 (Purcellville Road). The subject site is actually located approximately 2 linear miles from the Town of Hillsboro and approximately 5 linear miles from the Town of Lovettsville and is located within the Loudoun Valley – an area that is suitable for rural economy uses (*Revised General Plan, text, p. 7-1*). The existing land uses surrounding the subject site reflect the uses called for in the 2003 Revised General Plan and include rural economy and low-density residential. At full build-out, the impacts from a combined student/staff population of 2,475 are not compatible with the surrounding land uses and with planned land uses that call for a base density of 1 dwelling unit per 20 acres and rural economy uses².

The location of the proposed schools is not consistent with plan policies, which call for the location of new public schools within or immediately adjacent to the existing Villages, Towns, and Joint Land Management Areas. The subject site is located approximately 2 linear miles from the Town of Hillsboro and 5 linear miles from the Town of Lovettsville. The proposed schools, with a combined student/staff population of over 2,400 individuals, are also not compatible with existing land uses of the surrounding area and with planned land uses that call for a base density of 1 dwelling unit per 20 acres and rural economy uses.

B. ACCESSIBILITY

1. Rural Roads

The location of new schools in the Rural Policy Area should be at the focus of attendance areas to provide safe and convenient access for students (*Revised General Plan, Policy 4, p. 3-10*). According to the applicant, access to the elementary school will be provided solely by Route 694 (John Wolford Road). Once the middle school is completed, it is anticipated that access to both the elementary and middle schools will be provided by 2 facilities – John Wolford Road off of Route 287 and Purcellville Road off of Route 9.

The current conditions of John Wolford Road and Purcellville Road are inadequate to serve the proposed use. John Wolford Road is a 2-lane facility that provides access to approximately 8 residences and dead ends at the proposed school site while Purcellville Road is an unpaved facility with a posted speed limit of 30 mph. Providing

² The estimated student/staff population was taken from the applicant's submitted report titled "Preliminary Engineering Evaluation" completed by Greenway Engineering and dated August 31, 2006.

safe and convenient access to the schools would require road improvements to mitigate the traffic impacts of placing an estimated 3,300 Average Daily Trips (ADT) on the roadways³. The applicant's Traffic Impact Analysis (TIA) recommends John Wolford Road be upgraded and paved to incorporate 11' travel lanes as a measure for safe ingress/egress of both bus traffic and parent/faculty traffic. The TIA also recommends that Purcellville Road be upgraded and paved to incorporate 11' travel lanes and that the section of Purcellville Road between Route 9 and the Grubb property be improved in conjunction with the proposed opening of the middle school.

Staff notes that the TIA demonstrates the need for several transportation improvements attributed to background traffic through 2022. The additional traffic trips resulting from the two schools would only serve to exacerbate the need for improvements already anticipated on major roadways and would require the upgrading of unpaved rural roads. The County is committed to the preservation of the unpaved rural road network in its present state where possible. Unpaved rural roads are fundamental assets that should be preserved. They have a natural calming effect that permits their shared use for horseback riding, and the safe and efficient movement of farm vehicles while contributing to the quality of life sought by rural households (Countywide Transportation Plan, text, p. 3-10). Paving the rural roads can have the unintended effect of encouraging faster speeds and can also create greater conflicts between automobiles and other users of the rural roads. The Revised General Plan's land use pattern in the Rural Policy Area also supports lower densities in part to mitigate the additional costs that higher traffic volumes incur (Countywide Transportation Plan, text, p. 3-11). For these reasons, all road improvements for secondary roads in the Rural Policy Area should only be undertaken when required for essential safety enhancements to provide adequate levels of service and safety (Countywide Transportation Plan, text, p. 3-11).

The location of the proposed schools on the subject site would exacerbate the need for traffic improvements already anticipated by background traffic alone. The subject site is also located within an area that was not planned for the road infrastructure necessary to adequately serve the schools. Constructing the schools on the subject site would generate the need for unplanned road improvements and would necessitate the need for paving and improving John Wolford and Purcellville Roads to accommodate a school/staff population of over 2,400 students and an estimated 3,300 ADT's. Paving and upgrading these roads are not consistent with the policies of both the Revised General Plan and the Countywide Transportation Plan for rural, unpaved roads. Road improvements for secondary roads in the Rural Policy Area, including John Wolford Road and Purcellville Road, should only be undertaken when required for essential safety enhancements to provide adequate levels of service and safety.

³ ADT's were provided by the applicant's submitted Traffic Impact Analysis, completed by Timmons Group and dated December 21, 2006.

2. Bicycle and Pedestrian Access

Local and national estimates suggest that up to 30% of morning peak hour vehicle trips are school bound trips or include dropping students at schools. The environmental, social, health, traffic, safety and direct costs of a school system that delivers most students to school via school buses and personal automobiles can be significant. The Bike/Ped Plan encourages increasing the number of students that walk and bicycle to school. Safe routes to school can be achieved by linking public schools to adjacent neighborhoods through sidewalks or trails on both sides of roadways and crosswalks (Revised General Plan, Policy 4, p. 3-10 and Bike/Ped Plan, text, p. 36). For multi-modal access to be most effective, however, the school grounds and nearby developments also need to provide safe accommodations (Bike/Ped Plan, text 3, p. 36).

Placing the public schools within a predominantly agricultural and low-density residential area, isolated from existing towns and villages, means the majority of students cannot walk or bike to school due to a lack of area-wide pedestrian and bicycle facilities. Although the subject site would most likely include a connected, internal pedestrian and bicycle circulation network, there are no opportunities for external linkages - no pedestrian or bicycle facilities are planned for the adjacent road network. The proposed location cannot facilitate safe routes to school and cannot promote alternative transportation options for students. An overwhelming majority of students would be transported to the school via school bus or automobiles.

The environmental, social, health, and traffic, safety and direct costs of a school system that delivers most students to school via school buses and personal automobiles can be significant. The proposed school location, adjacent to surrounding developments and roadways where safe accommodations for students are not provided or planned for, means that plan policies that call for safe routes to school in order to increase the number of students that bicycle and walk to school cannot be met.

C. SITE DESIGN

Staff cannot support the proposal due to significant and fundamental land use issues inherent in the proposal. Should the application move forward, staff will provide further comments related to site design.

D. EXISTING CONDITIONS

Staff cannot support the proposal due to significant and fundamental land use issues inherent in the proposal. Should the application move forward, however, staff offers the following comments related to existing conditions that should be addressed.

1. Stream Corridor Resources

The Revised General Plan establishes stream corridor policies that reinforce the important role rivers and stream corridors play in protecting Loudoun County's water resources (Revised General Plan, text, p. 5-5 & 5-12). Stream corridor policies include the protection of rivers and streams, adjacent steep slopes, wetlands, forests, and historic, cultural and archeological resources within the floodplain, and a 50-foot management buffer adjacent to the floodplain and steep slopes (Revised General Plan, Policy 2, p. 5-6).

Wetland Studies and Solutions, Inc. (WSSI) produced a wetland delineation report, dated April 25, 2006 that identified the boundaries of jurisdictional wetlands and other waters of the U.S. (i.e. streams and ponds) on the subject site. According to the report, an unnamed, perennial tributary of Catoctin Creek runs east-west across the northern portion of the site.

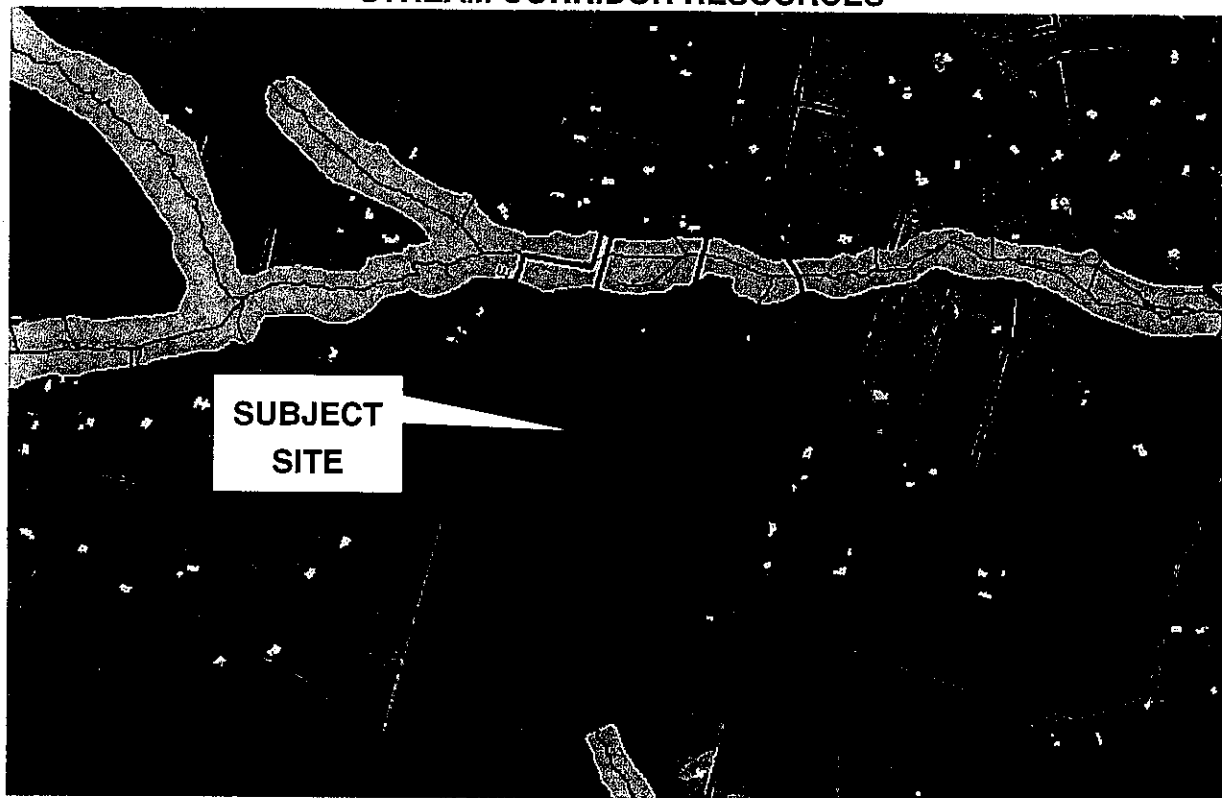


GRAPHIC 3: CATOCTIN CREEK TRIBUTARY AT THE NORTHERN PORTION OF THE SITE - LOOKING EAST FROM PURCELLVILLE ROAD

A preliminary hydrogeologic evaluation prepared by Triad Engineering, Inc. and dated November 1, 2006, indicates that the central and northern portions of the subject site drain to this stream, which discharges to Catoctin Creek approximately 5 miles

downstream. Palustrine emergent (PEM) and palustrine forested (PFO) wetlands are also present and associated with the tributary. County GIS records indicate the boundary of a 100-year floodplain associated with the stream.

**GRAPHIC 4: SUBJECT SITE SHOWING BOUNDARIES OF
STREAM CORRIDOR RESOURCES**



Within the floodplain and 50-foot management buffer, uses are limited to activities that will support and enhance the biological integrity and health of the river and stream corridor, including passive and active recreation, road crossings, pervious paths and trails, and agricultural activities (Revised General Plan, Policy 18, p. 5-10). The applicant's Special Exception Plat (Sheet 2 of 4) shows no disturbance to stream corridor resources. However, a conceptual stormwater management (SWM) facility is located at the northwest corner of the subject site and appears to be within the 50-foot management buffer. Local stormwater management facilities can be located within the 50-foot management buffer, provided best management practices are applied (Revised General Plan, Policy 18c, p. 5-10).

Staff recommends the Special Exception Plat include a 50-foot management buffer adjacent to the boundaries of the floodplain and its associated wetlands. Staff also recommends that the final location of all stormwater management facilities be located outside of the stream corridor. If the location is within the

stream corridor, staff recommends the applicant limit the location of the facility to within the 50-foot management buffer and that the applicant commit to Best Management Practices (BMP).

2. Spring House

The County encourages the protection and preservation of small stream segments to minimize disturbance and modification of such streams through the land development process (Revised General Plan, Policy 11, p. 5-9). The WSSI report notes the existence of a north-south stream that flows from a spring house and into the PEM wetland associated with the aforementioned tributary of Catoctin Creek. WSSI has classified this stream as perennial. According to the hydrogeological evaluation by Traid Engineering, Inc., the spring house and spring supplied water to a former residential structure (the property owner is cited in the report as stating that a former residence was located within this area but demolished in the 1970's).



GRAPHIC 5: VIEW OF THE SPRING HOUSE – LOOKING SOUTH

Due to its classification as a perennial stream and its overall contribution to the Catoctin Creek watershed, staff recommends the applicant protect and preserve the stream that originates from the spring by incorporating the stream and a 50-foot management buffer into the subject site's stream corridor resources. The 50-foot management buffer should be identified on the Special Exception Plat. Furthermore, staff recommends the applicant consider restoring the spring house and barn and, if feasible, utilize the stream corridor as an opportunity to

create a living lab, i.e., incorporating its natural resources and hydrological functions into the school curriculum.

3. Forest Cover

The preservation of existing forest cover into the overall site design to the maximum extent possible can buffer differing land uses from each other, protect wildlife habitat, and improve the overall water quality of the intermittent stream and wetlands by helping to reduce sedimentation and erosion, trap and remove pollutants such as nitrogen, phosphorus metals, and organic compounds, and store flood waters. For these reasons, the Revised General Plan calls for the preservation, protection and management of forests and natural vegetation and for the submittal and approval of a tree conservation plan, including any designated tree save areas, prior to any land development (Revised General Plan, Policies 1 & 3, p. 5-32).

A tree stand evaluation, dated May 1, 2006, was conducted by WSSI. The site is predominantly composed of open agricultural fields with adjacent fencerows and field borders. The hay field comprises the majority of the study area and is maintained and periodically mowed for the production of hay. The hayfield is dominated by pasture grass species, including meadow fescue. A successional field is located at the northeastern portion of the subject site, adjacent to the spring and PEM wetland. One forest stand type was identified on the site – a hardwood riparian corridor of less than 1 acre associated with the unnamed perennial tributary of Catocin Creek at the northern portion of the subject site. This riparian corridor extends east and west beyond the subject site and includes many small (5 to 10 inch DBH) diameter trees and saplings. The high seasonal water table associated with the stream corridor limits the productivity and growth of the hardwood riparian corridor. A tree-lined east-west fence row of maturing black locust trees were also identified adjacent to the headwaters of the spring. In addition, ten specimen trees (DBH of 30" or greater) were identified on the site, with the majority found along the field borders, and were included in the Special Exception Plat.

Plan policies support the preservation of forest cover and vegetation adjacent to the perennial stream and wetlands to act as a riparian buffer to reduce sedimentation and erosion and protect the surface water quality of the stream and the Catocin Creek watershed. Staff recommends the applicant commit to designating tree conservation areas on the Special Exception Plat that include: 1) Preserving the hardwood riparian corridor adjacent to both sides of the unnamed tributary of Catocin Creek located on the northern portion of the subject site, and 2) Preserving the existing fence row adjacent to the headwaters of the spring.

5. Endangered and Threatened Species

A report titled Endangered and Threatened Species Habitat Evaluation and Rare Plant Species/Community Assessment, dated April 26, 2006, was submitted by WSSI. The report indicates there is low probability that any endangered and threatened species are present in the study area.

Staff defers to the County's Environmental Review Team for comments related to endangered and/or threatened species.

6. Historic Resources

The Revised General Plan states the County will require an archeological and historic resources survey as part of all development applications and include a plan for recordation and preservation of any identified resources, along with measures for mitigation and adaptive reuse (Revised General Plan, Policy 11, p. 5-36).

The applicant submitted a report titled Phase I Investigations of the 102.4 Acre Western Loudoun Middle School Property, Loudoun County, Virginia.

Staff's review of the submitted report will be sent under separate cover.

E. WATER/WASTEWATER

The applicant proposes the use of on-site water and wastewater treatment facilities.

Staff defers comment on water and wastewater facilities due to the fundamental land use issues identified above.

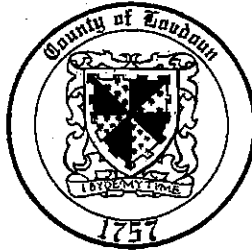
RECOMMENDATION

There are several fundamental land use and accessibility issues pertaining to the development of the Grubb property for an elementary and middle school that result in non-conformance with the Revised General Plan. The location of the subject site is also within an area not planned for the infrastructure necessary to adequately serve the schools. Community Planning staff recommends the applicant provide further information as to the suitability of the site and specific information on the locational criteria and policies used to determine site selection.

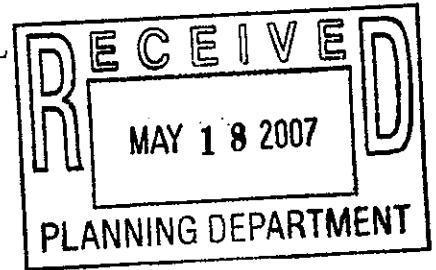
Staff would be happy to meet with the applicant to discuss these issues.

cc: Julie Pastor, AICP, Director, Planning
Cynthia L. Keegan, AICP, Program Manager, Community Planning

A.26



ZONING ADMINISTRATION REFERRAL



DATE: May 18, 2007
TO: Miguel Salinas, Project Manager, Planning
FROM: Claire Gron, Planner, Zoning Administration *CG*
SUBJECT: SPEX-2006-0044/CMPT-2006-0009
LCPS Grubb Property (2nd Referral)

LCTM/MCPI: /26/////////29/ 447-48-7740 ("Parcel 29")
/26/////////30/ 447-39-2786 ("Parcel 30")
/26/////////35/ 447-40-1217 ("Parcel 35")

I. APPLICATION SUMMARY

Zoning Administration staff has reviewed the above-referenced special exception and commission permit applications for conformance with the Revised 1993 Loudoun County Zoning Ordinance ("the Ordinance"). The following items were reviewed as part of the SPEX application:

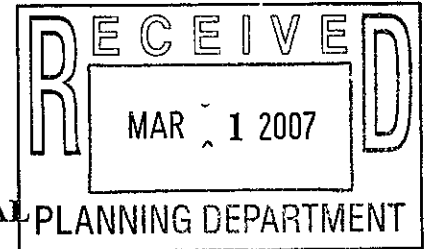
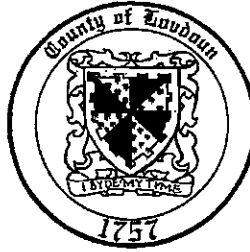
- A. Information Packet, including Statement of Justification, dated November 6, 2006, revised April 27, 2007.
- B. Plat, dated November 6, 2006.
- C. Response to Referral Comments, dated April 27, 2007.

This application is a request by Loudoun County Public Schools ("the Applicant") for approval of a Special Exception and Commission Permit to permit the construction of an elementary school and a middle school in the Agricultural Rural-1 (AR-1) district. A school (elementary, middle, or high) is permissible by special exception in the AR-1 district pursuant to Table 2-102.

The site is approximately 104 acres in size, and is comprised of three separate parcels. The site is zoned Agricultural Rural-1 (AR-1), and portions of the site also lie within the limits of the Floodplain Overlay District (FOD) (both Major and Minor Floodplain). For the purposes of this referral, Staff reviewed this application assuming consolidation of the parcels. Staff highly recommends that the Applicant receive confirmation from the Department of Building & Development, Planning Division that the parcels can be consolidated prior to proceeding with this application.

II. CONFORMANCE WITH THE REVISED 1993 LOUDOUN COUNTY ZONING ORDINANCE

1. **Table 2-102.** The Applicant states in the Response to Referral Comments dated April 27, 2007, that the on-site water and waste water facilities will serve only the proposed schools. Include a note to that effect on the plat.
2. **Section 2-103(A)(3).** The Applicant should identify the maximum (not an approximate) square footage for the site, to encompass the elementary school, middle school, spring house, and the sewer treatment and water treatment facilities.
3. **Section 5-1400.** The Applicant states, on Sheet 2, that where designated, the buffer yards shall be enhanced with a 15 foot wide evergreen buffer. However, no such enhanced buffer yard is identified on the plat. Specify the location of the enhanced buffer yard.
4. **Article VIII. "Outdoor Storage" and "Outdoor Storage, Vehicles."** Pursuant to the definition of "Outdoor Storage," the bus parking area must be enclosed by a fence, wall, landscaped berm, or other suitable and appropriate method. Label what appears to be an evergreen buffer around the bus parking area and provide details concerning the landscaping materials that will be provided.



ZONING ADMINISTRATION REFERRAL PLANNING DEPARTMENT

DATE: February 27, 2007
TO: Miguel Salinas, Project Manager, Planning
THROUGH: Mark Stultz, Deputy Zoning Administrator. *MS*
FROM: Claire Gron, Planner, Zoning Administration *CG*
SUBJECT: SPEX-2006-0044/CMPT-2006-0009
LCPS Grubb Property (1st Referral)

LCTM/MCPI: /26/////////29/ 447-48-7740 ("Parcel 29")
 /26/////////30/ 447-39-2786 ("Parcel 30")
 /26/////////35/ 447-40-1217 ("Parcel 35")

I. APPLICATION SUMMARY

Zoning Administration staff has reviewed the above-referenced special exception and commission permit applications for conformance with the Revised 1993 Loudoun County Zoning Ordinance ("the Ordinance"). The following items were reviewed as part of the SPEX application:

- A. Information Packet, including Statement of Justification, dated November 6, 2006, revised December 18, 2006, elevations, and floor plans.
- B. Plat, dated November 6, 2006.

This application is a request by Loudoun County Public Schools ("the Applicant") for approval of a Special Exception and Commission Permit to permit the construction of an elementary school and a middle school in the Agricultural Rural-1 (AR-1) district. A school (elementary, middle, or high) is permissible by special exception in the AR-1 district pursuant to Table 2-102.

The site is approximately 104 acres in size, and is comprised of three separate parcels. The site is zoned Agricultural Rural-1 (AR-1), and portions of the site also lie within the limits of the Floodplain Overlay District (FOD) (both Major and Minor Floodplain). For the purposes of this referral, Staff reviewed this application assuming consolidation of the parcels. Staff highly recommends that the Applicant receive confirmation from the

Department of Building & Development, Planning Division that the parcels can be consolidated prior to proceeding with this application.

II. CONFORMANCE WITH SECTION 6-1310, SPECIAL EXCEPTION ISSUES FOR CONSIDERATION

1. **Sections 6-1310(B), (J) and (L).** It appears as if the development of the site shall be phased; the first phase will include the construction of the elementary school, and the second phase will include the construction of the middle school. The Applicant indicates that the elementary school will be accessed from John Wolford Road (Rt. 694), and that access to Purcellville Road (Rt. 611) will be added upon construction of the middle school. However, it appears as if John Wolford Road, as shown on the special exception plat, is a gravel road. Staff questions whether the schools will have effective measures of fire control (§6-1310(B)), whether the traffic expected to be generated will be adequately and safely served by roads (§6-1310(J)), and whether the schools will be adequately served by essential public facilities and services. Staff defers to the Office of Transportation Services and Fire, Rescue & Emergency Services.

III. CONFORMANCE WITH THE REVISED 1993 LOUDOUN COUNTY ZONING ORDINANCE

1. **Table 2-102.** Provide additional information concerning the sewer treatment and water treatment facilities identified on the special exception plat. Specifically, explain who will be using the facilities. Staff questions the size of the facilities if they shall be used exclusively for the elementary school and the middle school; the water treatment facility appears to be approximately 25,000 sq. ft. in size and the sewer treatment facility appears to be approximately 9,500 sq. ft. in size.
2. **Section 2-103(A)(3).** The plans submitted contain much more detailed information than is required. The Applicant should be advised that a likely condition of approval of the special exception will be the development of the site in substantial conformance with the special exception plat. In addition, it appears as if the development of the site shall be phased. As such, Staff recommends that the Applicant provide details concerning the phasing of all improvements and state a minimum/maximum square footage to be provided during each phase only. Be advised that the sewer treatment and water treatment facilities should be included.
3. **Section 2-103(A)(3)(c).** Staff notes that a minimum 35 ft. yard (from any other road ROW) is required adjacent to Purcellville Road (Rt. 611). The yard illustrated on the special exception plat in this location appears to be internal to the site. Is any portion of the property to be dedicated? In addition, it does not appear as if the minimum 35 ft. yard (from any other road ROW) has been provided in the southeast corner of the site, adjacent to John Wolford Road (Rt. 694).
4. **Section 4-1500.** County records indicate that both Major and Minor Floodplain areas are located on the site. Illustrate the limits of the Major and Minor

- Floodplain on the special exception plat. Staff notes that a "100' Floodplain" is currently illustrated?
5. **Section 5-1000.** Illustrate the limits of the Scenic Creek Valley Buffer if the major floodplain is less than the §5-1002 setbacks.
 6. **Section 5-1100.** On Sheet 2, identify the proposed uses and state the rate at which parking will be provided for each use only. Required parking will be determined and verified at site plan.
 7. **Section 5-1300.** Remove Note #17, as there are no tree canopy requirements in the AR-1 district.
 8. **Section 5-1400.** This use requires Type II buffer yards pursuant to §5-1400. If the location of buffer yards is identified on the special exception plat, revise the buffer yard label adjacent to parcel MCPI# 446-19-5911 to specify that it is a side, not a front yard buffer. In addition, be advised that at the time of site plan, buffer yards must be provided in accordance with the special exception plat. In the alternative, state that buffer yards will be provided in accordance with §5-1400 only.
 9. **Section 5-1508.** The Applicant indicates, in Note #6 on Sheet 1, that there are no steep slopes on the property. However, County records indicate that 0.49 acres of Moderately Steep Slopes (15-25%) are located on Parcel 35.
 10. **Article VIII. "Outdoor Storage" and "Outdoor Storage, Vehicles."** The Applicant proposes a bus parking area for school buses on the site. The outdoor storage of vehicles is permitted if accessory to the elementary and middle school uses on the property. However, pursuant to the definition of "Outdoor Storage," the area must be enclosed by a fence, wall, landscaped berm, or other suitable and appropriate method.

IV. STATEMENT OF JUSTIFICATION COMMENTS

1. County records indicate that both Major and Minor Floodplain areas are located on the site. Revise page 2 accordingly.
2. County records indicate that 0.49 acres of Moderately Steep Slopes (15-25%) are located on Parcel 35. Revise page 3 accordingly.
3. On Page 4, the Applicant indicates that "initial access to the site is available from Route 9 via Route 611." This statement is inconsistent with what is stated throughout the Statement of Justification, and with what appears on the special exception plat. Please clarify.

V. ADDITIONAL COMMENTS

1. On Sheet 1, state that the site is zoned AR-1 under the Revised 1993 Loudoun County Zoning Ordinance. Also indicate that portions of the site lie within the limits of the Floodplain Overlay District (FOD) (Major and Minor Floodplain).
2. Generally, remove all references to ZMAP-2005-0042, ZOAM-2005-0002, DOAM-2005-0003, etc. and simply refer to the Revised 1993 Loudoun County Zoning Ordinance.

3. Revise Note #16 to refer to §5-1400 Buffering and Screening requirements (instead of Landscaping and Buffering requirements) and remove reference to ZOAM-2005-0002.
4. A spring house is referenced in Note #26, however, this structure does not appear on the plans, nor is it included in the zoning tabulations. Please revise.
5. Re-name Sheet 2 "Special Exception Plat" and not "Site Plan."
6. Staff recommends that the special exception plat be revised to remove soils and grading information (this information also appears on Sheet 3) in order for it to be more easily read.
7. Remove reference to ZOAM-2005-0002 in the zoning tabulations on Sheet 2.
8. Label the elementary school softball field and the middle school softball field.
9. Note #1 on Sheet 3 incorrectly identifies the zoning of the site.

VI. CONDITIONS OF APPROVAL

1. As the materials submitted with this application are based on the assumption that a BLAD will be approved, Staff recommends a condition to that effect. Staff notes that site plan approval cannot be obtained and permits cannot be issued for the project otherwise.

DEPARTMENT OF BUILDING AND DEVELOPMENT

COUNTY OF LOUDOUN

MEMORANDUM

DATE: May 11, 2007

TO: Miguel Salinas, Planning Project Manager

FROM: William Marsh, Environmental Review Team Leader *WM*

SUBJECT: **SPEX-2006-0044 Loudoun County Schools (LCPS) Grubb Property**

The Environmental Review Team (ERT) has reviewed the above-referenced application. Our comments pertaining to the current application are as follows:

Regarding resource use efficiency

1. Regarding water use, staff recommends a commitment to reduce water use for the two schools below current design assumptions, consistent with efficiency targets of between 20-40 percent, as recommended by the Leadership in Energy and Environmental Design (LEED) for Schools 2007 checklist.
2. Regarding energy use reduction, staff recommends further investigation into an application of geothermal design in a recently completed elementary school in Montgomery County, Maryland. Staff is attempting to set up a field visit to the site and will invite school staff to also go. If, upon inspection of this site, that geothermal appears applicable to the Grubb site, then staff would recommend a condition that it be incorporated into the school design.

Regarding stream buffers and forest resources

3. Staff recommends a commitment to reforestation similar to what is stated in SPEX-2006-0022, Western High School at Fields Farm.

Regarding Stormwater Management (SWM) and Best Management Practices (BMP)

4. Staff recommends a condition that the applicant treat stormwater runoff emanating from this site with best management practices (BMP) that achieve at least a 50 percent phosphorous removal efficiency, as referenced in Table 2-3 of the Virginia Stormwater Management Handbook. Further, the BMP's shall be arrayed such that all stormwater runoff from impervious surfaces is treated. Such a condition would produce a robust BMP design while affording design flexibility (i.e. a choice or mix of infiltration BMP's and/or ponds).

Other issues

5. Staff recommends a condition of approval that LCPS conducts a floodplain study for this stream reach prior to or during the site plan submittal, consistent with standards in Chapters 5 and 8 of the FSM. Such a study would improve the accuracy of flood hazard information for this approximate Zone A floodplain.

Due to the scope of the comments provided, staff requests an opportunity to comment on the subsequent submission of this application. Please contact me if you need any additional information.

DEPARTMENT OF BUILDING AND DEVELOPMENT

COUNTY OF LOUDOUN

MEMORANDUM

DATE: April 5, 2007

TO: Miguel Salinas, Planning Project Manager

FROM: William Marsh, Environmental Review Team Leader

SUBJECT: SPEX-2006-0044 Loudoun County Schools (LCPS) Grubb Property

The Environmental Review Team (ERT) has reviewed the above-referenced application. Our comments pertaining to the current application are as follows:

Regarding resource use efficiency

1. As mentioned in the Department of Planning memorandum on this application, the proposed use differs markedly from adjacent uses. The changes to infrastructure, including roads, power sources, and water supply needed for the proposed use is unprecedented for this part of Loudoun County. To minimize long term demands on energy and water required by this complex, staff suggests consideration of incorporating conservation measures into site design beyond what is normally done for county schools, including universal use of low flow toilets and waterless urinals, harvesting of rainfall from rooftops for plumbing and/or irrigation needs, and geothermal energy sources. Such measures would be consistent with the Public Facilities goal language on page 3-6 of the Revised General Plan (RGP) and General Water Policy 1 in Chapter 2 of the RGP.

Regarding stream buffers and forest resources

2. The major floodplain along the northern border of the school site is a headwater tributary to the North Fork Catoclin Creek. Staff recommends that the school construction include a reforestation plan for the river and stream corridor of the major floodplains on site. Such a plan would support several environmental policies in the RGP, including river and stream corridor policy 8 and surface water policy 3, respectively concerning restoration of stream corridor areas by public agencies and headwater protection within the Catoclin Creek watershed.
3. According to the submitted tree stand evaluation, most of the potential specimen trees on this site are not likely to be disturbed, except for tree number two, as specified on page 5 and sheet 1 of the tree stand evaluation. It is a black gum, *Nyssa sylvatica*, listed in good condition and located on the northwestern corner

of the project area. A conceptual stormwater management / best management practice (bmp) facility is proposed at the tree's location. Given that the large open field surrounding the tree affords space for designing a pond without disturbing the tree's critical root zone, please adjust the pond's location accordingly.

Regarding Stormwater Management (SWM) and Best Management Practices (BMP)

4. Two pond locations are proposed that would direct runoff through downstream properties prior to encountering floodplain overlay districts. According to field observations, the existing downstream channels are poorly defined and may require stormwater easements and grading to achieve adequate channel conditions, as described in Chapter 5 of the Facilities Standards Manual. Staff encourages low impact development measures like harvesting of rooftop runoff and infiltration bmp measures for the parking lot runoff to minimize pond sizes and the runoff rates leaving these ponds.

Other issues

5. Because the major floodplain on this site is approximate, or Zone A, on National Flood Insurance Map numbers 51107C0085D and 511070080D, dated July 5, 2001, the 1% annual chance flood elevations are not calculated along this stream reach. Staff recommends a condition of approval that LCPS conducts a floodplain study for this stream reach prior to or during the site plan submittal, consistent with standards in Chapters 5 and 8 of the FSM.
6. To verify conformance with steep slope standards in Section 5-1508 of the Revised 1993 Zoning Ordinance, please depict moderately steep and very steep slope areas on the special exception plan set.
7. Staff is embarking on a project to map and inventory wetlands and cultural resources located within Loudoun County. We are requesting that the engineering community contribute digital data to this effort. Specifically, two separate digital data layers are requested, one depicting the Corps-approved wetland delineation (including jurisdictional wetlands and waters) and the other locating the sites identified in the Phase 1 Archaeological Survey. Loudoun County's GIS uses ESRI software and can import .DXF data. Our coordinate system is Virginia State Plane. Datum NAD 83 data is preferable, if available. Documentation on the digital data (e.g., map scale, age, etc.) is requested.

Due to the scope of the comments provided, staff requests an opportunity to comment on the subsequent submission of this application. Please contact me if you need any additional information.

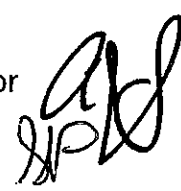
A-36

County of Loudoun
Office of Transportation Services
MEMORANDUM

DATE: May 11, 2007

TO: Miguel Salinas, Project Manager

THROUGH: Art Smith, Program Manager, Senior Coordinator

FROM: George Phillips, Senior Transportation Planner 

SUBJECT: SPEX 2006-0044 & CMPT 2006-0009, Loudoun County Schools-Grubb Property Second Submission

LOCATION: East side of Purcellville Road (Route 611), north of Route 9 and west of John Wolford Road (Route 694)

Background

In response to initial comments dated February 12, 2007 from the Office of Transportation Services (OTS), the applicant, Loudoun County Public Schools, has provided a response letter dated April 27, 2007 and a revised plat from Bowman Consulting also dated April 27, 2007.

Transportation Comments

The applicant has adequately addressed each of the previously raised transportation issues from the initial OTS referral. This includes agreeing to have all road improvements in place prior to the opening of the proposed schools, emergency access to Route 611 only until the road improvements on Route 611 are complete, provision of a better school entrance location on Route 694 which includes better separation and includes a cul-de sac at its terminus and provision of adequate right of way and widening to VDOT standards on Route 611 and Route 694.

Recommendation

The applicant has adequately addressed all of the previously raised outstanding transportation issues. Therefore, OTS would not object to the approval of this application.

GRP/D drive/C files

Grubb Property/ Second Submission/D Drive/C Drive files

County of Loudoun
Office of Transportation Services
MEMORANDUM

DATE: February 12, 2007

TO: Miguel Salinas, Project Manager

FROM: Mark Matthews, Transportation Operation Engineer/Management Analyst *Mark Matthews*

THROUGH: Art Smith, Senior Coordinator *AS*

**SUBJECT: SPEX 2006-0044 Loudoun County Schools – Grubb Property
First Referral**

Background

The applicant is seeking approval of a special exception application to permit an elementary and middle school in the AR-1 zoning district. The site is located along the east side of Purcellville Road (Route 611), north of Route 9 and west of John Wolford Road (Route 694). Access to the site will be provided from the existing Purcellville Road (Route 611) and John Wolford Road (Route 694).

Existing, Planned and Programmed Roads

Route 9 is included in the Countywide Transportation Plan (CTP) as an R2 2-lane local access undivided paved rural arterial with 12-foot travel lanes and left and right turn lanes required at major intersections. Berlin Turnpike (Route 287) is included in the Countywide Transportation Plan (CTP) as an R2 2-lane undivided paved rural collector with 12-foot travel lanes, and left and right turn lanes required at major intersections.

Existing and Forecasted Traffic Volumes and Levels of Service

The 2005 VDOT traffic volume estimate for Purcellville Road (Route 611) in the vicinity of this site is 310 Average Daily Trips. The 2005 VDOT traffic volume estimate for John Wolford Road (Route 694) is 120 Average Daily Trips.

Comments

1. All proffered road improvements associated with the John Wolford Road entrance should be in place prior to the opening of the elementary school.
2. All proffered road improvements associated with the Purcellville Road entrance should be in place prior to the opening of the middle school.
3. The Purcellville Road entrance should only be open to emergency vehicles until the road improvements associated with Purcellville Road are completed.
4. Staff has concerns about the location of the site entrance so close to the curve on John Wolford Road. The applicant should move its driveway south to bend of John Wolford Road. The driveway and John Wolford Road should connect to form a "T" intersection. If possible the intersection should be aligned with the private driveway on the South side of the curve.
5. The applicant should construct a cul-de-sac at the end of John Wolford Road, in order to provide a turn-around for maintenance vehicles.
6. If the applicant does not intend to open the Purcellville Road entrance until after the Elementary School is opened, an emergency access easement should be provided from the Purcellville Road entrance. The Purcellville Road entrance should remain closed to all other traffic, including construction traffic, until the Purcellville Road improvements are in place and the entrance has been accepted by VDOT.
7. Staff notes that the applicant has offered road improvements listed on page 59 of the traffic impact analysis dated December 21, 2006. Staff agrees with the applicant's conclusion that significant upgrading/paving is needed to ensure safe ingress/egress of both bus traffic and parent/faculty traffic, as well as construction traffic. The applicant should clarify that the improved segments of John Wolford Road and Purcellville Road will be paved with 11 foot travel lanes, and necessary shoulder and ditch improvements. Portions of John Wolford Road built to pave-in-place standards must be paved to full VDOT standards.

The upgrading paving of John Wolford Road should extend from the terminus of the public road to Route 287. Upgrading and paving of Purcellville Road should extend to the northern boundary of the property frontage.

8. The applicant should provide adequate right of way to construct Purcellville Road and John Wolford Road in a 50 foot right-of-way.
9. Additional through lanes on Route 9 and Route 287 are not called for by the Countywide Transportation Plan.

February 12, 2007

Conclusion

The applicant should respond to the comments of the Office of Transportation Services and provide a proffer package.

CC: Terrie Laycock, Acting Director

CC: Andrew G. Beacher, Assistant Director, Highway Division Chief

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COMMONWEALTH of VIRGINIA

DAVID S. EKERN, P.E.
COMMISSIONER

DEPARTMENT OF TRANSPORTATION

14685 Avion Parkway
Chantilly, VA 20151
(703) 383-VDOT (8368)

May 18, 2007

Mr. Michael Salinas
County of Loudoun
Department of Planning MSC#62
1 Harrison Street, S.E.
P.O. Box 7000
Leesburg, Virginia 20177-7000

Re: Grubb
Loudoun County Application Number SPEX 2006-0044 and CMPT 2006-0009

Dear Mr. Salinas:

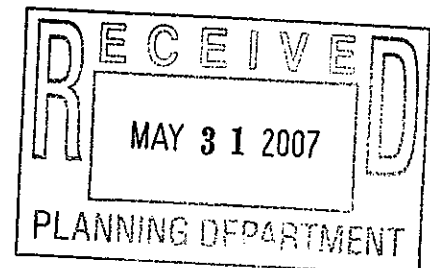
We have reviewed the above revised application as requested in your May 2, 2007 transmittal. Our March 16, 2007 comments have been addressed. We have no additional comments to offer.

If you have any questions, please call me at (703) 383-2424.

Sincerely,

A handwritten signature in black ink, appearing to read "T. B. VanPoole".

Thomas B. VanPoole, P.E.
Senior Transportation Engineer



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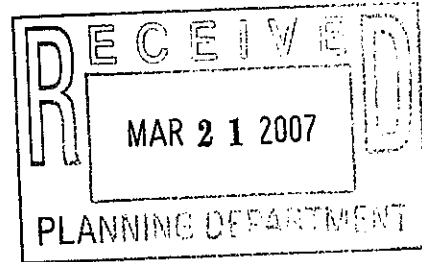
COMMONWEALTH of VIRGINIA

DAVID S. EKERN, P.E.
COMMISSIONER

DEPARTMENT OF TRANSPORTATION

14685 Avion Parkway
Chantilly, VA 20151
(703) 383-VDOT (8368)

March 16, 2007



Mr. Michael Salinas
County of Loudoun
Department of Planning MSC#62
1 Harrison Street, S.E.
P.O. Box 7000
Leesburg, Virginia 20177-7000

Re: Grubb
Loudoun County Application Number SPEX 2006-0044 and CMPT 2006-0009

Dear Mr. Salinas:

We have reviewed the above application as requested in your January 16, 2007 transmittal. We offer the following comments:

1. The road improvements recommended in the traffic study should be accomplished, especially including widening of Routes 694 and 611, turn lanes at Routes 287/694 and 9/611, and a signal when warranted at Route 287/694.
2. Turn lane lengths on Routes 9 and 287 should be 400' long plus 100' bay taper and 55:1 left turn lane transition taper. See VDOT Northern Virginia District November 1985 Turn Lane Policy.
3. Route 611 improvements should include paving.
4. Have signal warrants been examined at Route 9/611?

Grubb
March 16, 2007
Page 2

If you have any questions, please call me at (703) 383-2424.

Sincerely,

A handwritten signature in black ink, appearing to read 'TB VanPoole', with a stylized flourish at the end.

Thomas B. VanPoole, P.E.
Senior Transportation Engineer



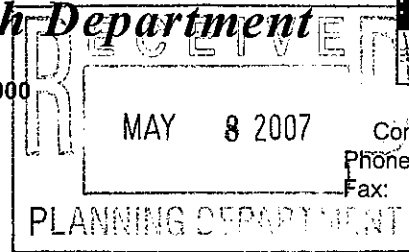
Environmental Health
Phone: 703 / 777-0234
Fax: 703 / 771-5023

Loudoun County Health Department

P.O. Box 7000
Leesburg VA 20177-7000




Community Health
Phone: 703 / 777-0236
Fax: 703 / 771-5393



May 4, 2007

MEMORANDUM TO: Miguel Salinas, Project Manager MSC 62
Department of Planning

FROM: Joseph E. Lock  MSC 68
Rural Section Supervisor
Division Of Environmental Health

SUBJECT: SPEX 2006-0044 & CMPT 2006-0009, Loudoun County
Schools- Grubb Property
LCTM 26/35, PIN 447401217

The above referenced project meets the requirements of Section 1245.10 of the LSDO for:

	Yes	No	N/A
a. Proposed Drainfield Sites	_____	<u>X</u>	_____
b. Proposed Wells	_____	<u>X</u>	_____

The locations on the plat, submitted by Bowman Consulting dated November 6, 2006, are correct as shown:

a. Wells (existing and proposed)	_____	<u>X</u>	_____
b. Drainfield Sites	_____	<u>X</u>	_____

Health Department staff recommends: Approval _____ Denial _____
Approval with conditions X

Items that are incorrect/deficient are listed on the attached page.

Attachments Yes X No _____

If further information or clarification on the above project is required, please contact me at (703)771-5800.


JEL/JDF/jel
C:GrubbSchool2.Referral

SPEX 2006-0044 & CMPT 2006-0009

LCTM 26/35

May 4, 2007

Page 2

ATTACHMENT

The revised preliminary engineering report has been received for the school project and a second preliminary conference has been held with the State Health Department. This office will request additional information for the on-site sewage system design prior to site plan approval. Therefore, this Department can recommend approval with conditions for the proposed special exception and commission permit. The conditions are listed below:

- 1) Three lots exist for this project and a lot consolidation will be required prior to issuance of a septic permit.
- 2) Both drilled wells that are shown are existing and should be labeled as such.
- 3) Any corrections or additions requested at the State or Local level to the on-site sewage design must be completed prior to site plan approval.
- 4) All GMP 101 requirements must be completed prior to permit issuance.

Notes: The proposed wells have not been constructed completely for the proposed school(s). The hydrogeological study is approved preliminarily.

January 24, 2007

MEMORANDUM TO: Miguel Salinas, Project Manager MSC 62
Department of Planning

FROM: Joseph E. Lock MSC 68
Rural Section Supervisor
Division Of Environmental Health

SUBJECT: **SPEX 2006-0044 & CMPT 2006-0009, Loudoun County
Schools- Grubb Property
LCTM 26/35, PIN 447401217**

The above referenced project meets the requirements of Section 1245.10 of the LSDO for:

	Yes	No	N/A
a. Proposed Drainfield Sites	_____	<u>X</u>	_____
b. Proposed Wells	_____	<u>X</u>	_____

The locations on the plat, submitted by Bowman Consulting dated November 6, 2006, are correct as shown:

a. Wells (existing and proposed)	_____	<u>X</u>	_____
b. Drainfield Sites	_____	<u>X</u>	_____

Health Department staff recommends: Approval _____ Denial X
Approval with conditions _____

Items that are incorrect/deficient are listed on the attached page.

Attachments Yes X No _____

If further information or clarification on the above project is required, please contact me at (703)771-5800.

JEL/JDF/jel
C:GrubbSchool.Referral

A49

SPEX 2006-0044 & CMPT 2006-0009

LCTM 26/35

January 24, 2007

Page 2

ATTACHMENT

The preliminary engineering evaluation has been received for the school project and a preliminary conference has been held with the State Health Department. This office will request additional information for the design, and therefore this Department cannot comment on the proposed special exception or the actual or proposed usage.

Three lots exist for this project and a lot consolidation will be required prior to issuance of a septic permit.

Drainfield sites 1 and 3 are not shown accurately. From conversations with the soil consultants, both sites can be squared off as approved areas.

Both wells that are shown are existing and should be labeled with their appropriate well abandonment permit numbers. The well closest to Route 694 can now be labeled as an existing abandoned well (T60242430002). The well closest to Route 611 should be labeled as T60242430002.

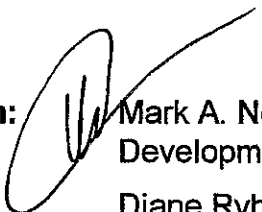
The proposed wells have not been constructed for the proposed school(s). Therefore, the detailed hydrogeological study has not been completed. This wells should be shown on the plat and labeled with their appropriate permit numbers (Well 1=T60242440001, Well 2=T60242430001).

A-50

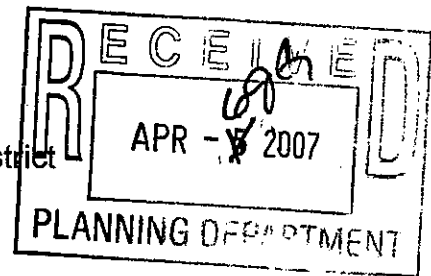


**COUNTY OF LOUDOUN
PARKS, RECREATION AND COMMUNITY SERVICES
REFERRAL MEMORANDUM**

To: Miguel Salinas, Project Manager
Department of Planning (MSC #62)

From:  Mark A. Novak, ASLA, Chief Park Planner, Facilities Planning and Development (MSC #78)

CC: Diane Ryburn, Director
Steve Torpy, Assistant Director
Su Webb, Park Board, Chairman
Stephenie Doyle, Park Board, Blue Ridge District



Date: April 5, 2007

Subject: Grubb Property School Sites – SPEX 2006-0024, CMPT 2006-0007

Election District: Blue Ridge **Sub Planning Area:** Northwest

MCPI # 447-48-7740, 447-39-2786, 447-40-1217

Background:

Loudoun County Public School is seeking approval of a Commission Permit and Special Exception to establish an elementary school and middle school on approximately 104± acres of property zoned AR-1 Agricultural Rural-1. The property is located to the east of Hillsboro, North of Charlestown Pike (Route 9), east of Purcellville Road (Route 611) and west of Berlin Turnpike (Route 287) on John Wolford Road (Route 694). A portion of the property is located with the Floodplain Overlay District and contains an archeological site.

Policy:

The subject property is governed by the land use policies contained in the Rural Policy Area of the Revised General Plan and the transportation policies found in the Revised Countywide Transportation Plan (CTP). The AR-1 Zoning district requires a special exception for school use.

Project Analysis:

Both school facilities (elementary and middle) are proposed to be located on the property with associated recreational facilities and on-site sewer and water facilities. Programming for an elementary school includes a building of 91,000± square feet with capacity of approximately 875 students and two recreational playing fields for soccer and softball. The

middle school would provide a building of 168,000± square feet with capacity of approximately 1350 students, with three recreational playing fields two soccer and one softball. The Capital Improvements Program (CIP) projects a future western elementary school for Fall of 2012 and a future middle school in the Fall of 2015. Student population growth could bring these schools on line sooner.

Comments:

With respect to Parks, Recreation and Community Services (PRCS) we offer the following comments and recommendations:

1. The Department of Parks, Recreation and Community Services has enjoyed a long-standing collaboration with Loudoun County Public Schools that allows the use of certain school facilities for PRCS programs. We appreciate that cooperative agreement and hope it continues since it is clearly consistent with the Revised General Plan policy that states school sites should be "*community assets and the focal point for active recreation and after-school programs*".
2. Staff strongly suggests the Applicant consider location of future site amenities such as a playground and track for the elementary school. Typically these facilities are not part of the original programming or funding of the school. Usually, these facilities are provided as an afterthought from parents through the PTO or PTA as a fund raising event. The Applicant should consider where such facilities should be located so not to compromise the proposed ballfields.
3. PRCS strongly supports any efforts to protect and preserve wetlands, stream corridors, trees, and native vegetation because these contribute directly to protecting the health of surface water, groundwater, air quality, and aesthetics – all of which contribute to the health of the community's residents.

RECOMMENDATIONS:

PRCS has reviewed the material submitted and would not be in objection to a favorable recommendation of approval on this application.

If you have any questions or concerns regarding these comments, please do not hesitate to contact me personally via phone at 703-737-8992, or via e-mail at mark.novak@loudoun.gov. I look forward to attending any meetings or work sessions to offer PRCS support, or to be notified of any further information regarding this project.

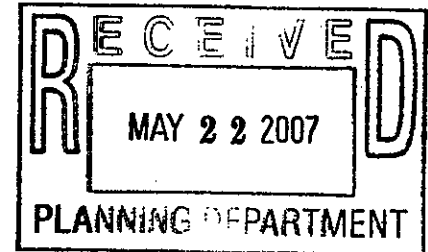


LOUDOUN COUNTY, VIRGINIA
Department of Fire, Rescue and Emergency Management
803 Sycolin Road, Suite 104 Leesburg, VA 20175
Phone 703-777-0333 Fax 703-771-5359



MEMORANDUM

To: Miguel Salinas, Project Manager
From: Maria Figueroa Taylor, Fire-Rescue Planner
Date: May 21, 2007
Subject: Loudoun County Schools – Grubb Property
SPEX 2006-0044 & CMPT 2006-0009
Second Referral



Thank you for the opportunity to review the Applicant's response to our first referral comments regarding the above captioned application. The Fire and Rescue Planning Staff has no further comments.

If you have any questions or need additional information, please contact me at 703-777-0333.

c: Project file

*Teamwork * Integrity * Professionalism * Service*

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LOUDOUN COUNTY, VIRGINIA
Department of Fire, Rescue and Emergency Management

803 Sycolin Road, Suite 104 Leesburg, VA 20175
Phone 703-777-0333 Fax 703-771-5359

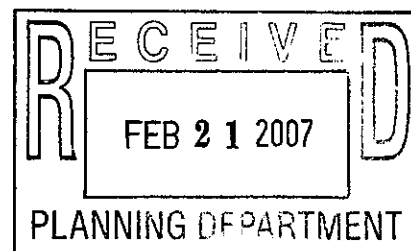


MEMORANDUM

To: Miguel Salinas, Project Manager
From: Maria Figueroa Taylor, Fire-Rescue Planner *[Signature]*
Date: February 20, 2007
Subject: Loudoun County Schools – Grubb Property
SPEX 2006-0044 & CMPT 2006-0009

Thank you for the opportunity to review the above captioned application to allow an elementary school and middle school in the AR-1 Zoning District. The Fire and Rescue Planning Staff recommends that the Applicant would consider redesigning the circular drive in front of the elementary school. A semicircle similar to the current configuration of the Lovettsville Elementary School will allow better access (and flow) of emergency vehicles through the site.

If you have any questions or need additional information, please contact me at 703-777-0333.



c: Project file

*Teamwork * Integrity * Professionalism * Service*

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DEPARTMENT OF PLANNING & ZONING

MEMORANDUM

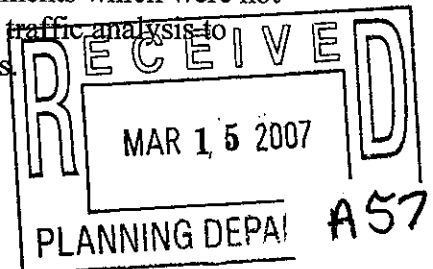
Date: March 13, 2007

To: Miguel Salinas, Project Manager, Loudoun County Department of Planning

SUBJECT: SPEX-2006-0044 & CMPT 2006-0009 Loudoun County Schools - Grubb Property

The Town of Purcellville ("Town"), Office of Planning & Zoning, has reviewed the above-referenced application. The Town appreciates the opportunity to comment on this first submission of the application. The Town's comments are as follows:

1. In the statement of justification, it is noted that the LCSB CIP projects an additional western Loudoun elementary school for the Fall of 2012 and an additional western Loudoun middle school for the Fall of 2015. It is also noted that student population growth could affect the timing of the need for these schools. Given the weakness in the residential real estate market, it seems more likely that student population growth will slow down the need for these schools. Assuming construction takes 18 months, that leaves a minimum of 3 years when the property will simply sit vacant. In the Town's opinion, it is too soon to be obtaining a Commission Permit for these schools.
2. Has this site been evaluated for a high school? If so, the Town requests the opportunity to review any evaluation, discussion or criteria used to initiate the acquisition and application. Several arguments can be made that this site is better for a high school. The timing is better, the site is over 100 acres, it is located near a primary road, and it is fairly centrally located in the proposed HS-3 attendance zone. It is premature to pursue a special exception for a specific school type for this property, especially in light of the pending litigation between the County and the Town regarding the Fields Farm high school site.
3. As this application affects all western Loudoun towns, referrals should also be sent to Round Hill and Hamilton.
4. The referral cover memorandum mentions several attachments which were not included in our packet. The Town would like to see the traffic analysis to evaluate the traffic impacts south of the proposed schools.



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